

GenCore version 5.1.4_p5_4578
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OM protein - protein search, using sw model

Run on: March 13, 2003, 08:30:55 ; Search time 36.5 Seconds
(without alignments)
91.268 Million cell updates/sec

Title: US-09-913-524-9

Perfect score: 143

Sequence: 1 PWSPALRLQLRPPEPSAHAFCHR 25

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 908470 seqs, 133250620 residues

Total number of hits satisfying chosen parameters: 908470

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database :

A_Geneseq_101002:*

- 1: /SID52/qcadata/geneseq/geneseq-emb1/AA1980.DAT.*
- 2: /SID52/qcadata/geneseq/geneseq-emb1/AA1981.DAT.*
- 3: /SID52/qcadata/geneseq/geneseq-emb1/AA1982.DAT.*
- 4: /SID52/qcadata/geneseq/geneseq-emb1/AA1983.DAT.*
- 5: /SID52/qcadata/geneseq/geneseq-emb1/AA1984.DAT.*
- 6: /SID52/qcadata/geneseq/geneseq-emb1/AA1985.DAT.*
- 7: /SID52/qcadata/geneseq/geneseq-emb1/AA1986.DAT.*
- 8: /SID52/qcadata/geneseq/geneseq-emb1/AA1987.DAT.*
- 9: /SID52/qcadata/geneseq/geneseq-emb1/AA1988.DAT.*
- 10: /SID52/qcadata/geneseq/geneseq-emb1/AA1989.DAT.*
- 11: /SID52/qcadata/geneseq/geneseq-emb1/AA1990.DAT.*
- 12: /SID52/qcadata/geneseq/geneseq-emb1/AA1991.DAT.*
- 13: /SID52/qcadata/geneseq/geneseq-emb1/AA1992.DAT.*
- 14: /SID52/qcadata/geneseq/geneseq-emb1/AA1993.DAT.*
- 15: /SID52/qcadata/geneseq/geneseq-emb1/AA1994.DAT.*
- 16: /SID52/qcadata/geneseq/geneseq-emb1/AA1995.DAT.*
- 17: /SID52/qcadata/geneseq/geneseq-emb1/AA1996.DAT.*
- 18: /SID52/qcadata/geneseq/geneseq-emb1/AA1997.DAT.*
- 19: /SID52/qcadata/geneseq/geneseq-emb1/AA1998.DAT.*
- 20: /SID52/qcadata/geneseq/geneseq-emb1/AA1999.DAT.*
- 21: /SID52/qcadata/geneseq/geneseq-emb1/AA2000.DAT.*
- 22: /SID52/qcadata/geneseq/geneseq-emb1/AA2001.DAT.*
- 23: /SID52/qcadata/geneseq/geneseq-emb1/AA2002.DAT.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	131	91.6	33	12	AA12087
2	131	91.6	360	7	AA190517
3	128	89.5	32	22	AA192074
4	128	89.5	33	22	AA192075
5	128	89.5	134	9	AA1980018
6	128	89.5	134	22	AA1986139
7	128	89.5	134	23	AA1951942
8	128	89.5	351	8	AA1970202
9	128	89.5	366	7	AA1960519
10	128	89.5	366	9	AA1983167

11	128	89.5	366	21	AA192015	Human inhibin A al
12	127	88.8	32	22	AA192078	Inhibin peptide SE
13	127	88.8	33	22	AA192079	Inhibin peptide SE
14	127	88.8	134	8	AA1971175	First protein chain
15	127	88.8	364	8	AA1970310	Sequence of porcine
16	127	88.8	364	8	AA1970199	Sequence of porcine
17	108	75.5	29	9	AA191907	N-terminal of inhib
18	100	69.9	26	23	AA193966	Rovine inhibin alp
19	98	68.5	122	22	AA193201	Inhibin alpha C-t
20	97	67.8	28	22	AA191686	PAM related peptid
21	87	60.8	26	10	AA191262	Inhibin 18 kb chai
22	73	51.0	14	22	AA1968142	Peptide derived fr
23	73	51.0	14	22	AA1968175	Peptide derived fr
24	73	51.0	27	21	AA195425	Inhibin portion of
25	73	51.0	28	21	AA195426	Inhibin portion of
26	70	49.0	14	22	AA1968176	Peptide derived fr
27	68	47.6	14	22	AA1968144	Peptide derived fr
28	68	47.6	14	22	AA1968174	Peptide derived fr
29	68	47.6	14	22	AA1968178	Peptide derived fr
30	67	46.9	14	22	AA1968143	Peptide derived fr
31	67	46.9	14	22	AA1968177	Peptide derived fr
32	60	42.0	14	22	AA1968145	Peptide derived fr
33	60	42.0	14	22	AA1968179	Peptide derived fr
34	59	41.3	161	22	AA1904119	Novel human diagno
35	59	41.3	161	22	AA1904122	Novel human diagno
36	56.5	39.5	123	22	AA1950148	Propionibacterium
37	56	39.2	14	22	AA1968141	Peptide derived fr
38	56	39.2	14	22	AA1968173	Peptide derived fr
39	55.5	38.8	1832	21	AA1958575	Sorangium cellulos
40	54	37.8	57	21	AA1951761	Human secreted pro
41	54	37.8	710	22	AA1920114	Novel human diagno
42	52.5	36.7	368	21	AA195223	G protein coupled
43	52.5	36.7	368	21	AA1971293	Human orphan G pro
44	52.5	36.7	368	21	AA1902827	Human G protein co
45	52.5	36.7	368	22	AA1910303	G-protein coupled

ALIGNMENTS

RESULT 1

AA12087
ID AA12087 standard; peptide; 33 AA.
AC AA12087;
DT 01-AUG-1991 (first entry)
DE N-terminal of 18 kD subunit of ovine inhibin.
KW Follicle stimulating hormone; FSH; luteinising hormone; LH;
KW fertility; gonadotropin.
OS Ovis aries.
XX US5015729-A.
XX 14-MAY-1991.
XX 23-JUN-1988; 88US-0210683.
XX 23-JUN-1988; 88US-0210683.
PR 24-JUN-1986; 86US-0878063.
XX (SALK) SALK INST FOR BIOL STUD.
PI Spiess J, Rivier JEF, Hardin CW, Vale WW;
XX WPI; 1991-163615/22.
XX Pure ovine inhibin protein - which inhibits secretion of follicle
PT stimulating hormone while not inhibiting secretion of luteinising
PT hormone.

XX Claim 1; Page 11; 11pp; English.

XX The sequence is the N-terminal of the 18 kD subunit of the ovine

CC inhibin dimer. The protein specifically inhibits basal secretion of

CC follicle stimulating hormone (FSH) but not that of luteinising

CC hormone (LH). It can be admin. to mammals for control of fertility,

CC gonadotropin secretion or sex hormone prodn. Admin decreases

CC fertility in females and increases spermatogenesis in males. The

CC protein can also be used to diagnose infertility. Antibodies raised

CC against the protein can neutralise the activity and could be used in

CC immunisation to block endogenous secretion of inhibin, elevating

CC endogenous gonadotropin secretion. The protein was purified from

CC ram rete testis fluid by a combination of gel filtration and

CC reverse phase HPLC. See also AAR12088.

XX

SQ Sequence 33 AA;

Query Match 91.6%; Score 131; DB 12; Length 33;

Best Local Similarity 92.0%; Pred. No. 6.2e-11;

Matches 23; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY 1 PWSPAALRLQLRPPEPSAHAFCHR 25

DB 8 PWSPAALRLQLRPPEPSAHAFCHR 32

RESULT 2

AAP60517

ID AAP60517 standard; Protein; 360 AA.

XX

AC AAP60517;

DT 26-JUN-1991 (first entry)

XX

DE Sequence of bovine inhibin A subunit.

XX

KW Hormone; inhibin agonist; antagonist; reproductive; gonad.

XX

OS Bos taurus.

XX

FH Key Location/Qualifiers

FT Region 1..226

FT /note= "claimed"

FT Region 51..226

FT /note= "claimed"

FT Region 61..226

FT /note= "claimed"

FT Peptide 1..60

FT Protein 61..360

XX

PN W08606076-A.

XX

XX 23-OCT-1986.

XX

PF 14-APR-1986; 86WO-AU000097.

XX

XX 20-DEC-1985; 85AU-0003961.

PR 18-APR-1985; 85AU-0000194.

PR 06-SEP-1985; 85AU-0002320.

PR 29-OCT-1985; 85AU-0003157.

PR 19-DEC-1985; 85AU-0003960.

PR 01-JAN-1986; 86AU-0059039.

PR 02-APR-1987; 87AU-0071015.

PR 05-MAY-1986; 86CN-0103459.

XX

PA (BIOT-) BIOTECH AUSTR PTY.

PA (MONU) MONASH UNIV.

PA (HENR-) PRICE HENRY'S HOSPITAL.

PA (SVIN-) ST VINCENT'S INST MED RE.

XX

PI Forage R, Stewart A, Robertson D, Dekretser DM;

XX

DR WPI: 1986-291647/44.

DR N-PSDB: AAN60426.

XX

PT New polynucleotide sequences and recombinant DNA - encoding

PT inhibin and synthetic peptides useful for affecting gonadal

PT function

XX

PS Disclosure; Fig 5; 71pp; English.

XX

CC DNA encoding inhibin and inhibin or part, analogues, homologues or

CC precursors thereof when produced by recombinant techniques are also

CC claimed, as well as pharmaceutical compositions thereof. These may

CC be used as an inhibin agonist, antagonist or for eliciting an

CC antigenic response to affect gonadal function or reproductive

CC physiology.

XX

SQ Sequence 360 AA;

Query Match 91.6%; Score 131; DB 7; Length 360;

Best Local Similarity 92.0%; Pred. No. 7.7e-10;

Matches 23; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY 1 PWSPAALRLQLRPPEPSAHAFCHR 25

DB 234 PWSPAALRLQLRPPEPSAHAFCHR 258

RESULT 3

AAB92074

ID AAB92074 standard; Peptide; 32 AA.

XX

AC AAB92074;

DT 22-JUN-2001 (first entry)

XX

DE Inhibin peptide SEQ ID NO:1250.

XX

KW Protection; endogenous therapeutic peptide; peptidase; conjugation;

KW blood component; modification; succinimide; maleimido group; amino;

KW hydroxyl; thiol; hormone; growth factor; neurotransmitter.

XX

OS Homo sapiens.

OS Synthetic.

XX

PN W0200069900-A2.

XX

PD 23-NOV-2000.

XX

PF 17-MAY-2000; 2000WO-US13576.

XX

PR 17-MAY-1999; 99US-0134406.

PR 10-SEP-1999; 99US-0153406.

PR 15-OCT-1999; 99US-0159783.

XX

PA (CONJ-) CONJUCHEM INC.

XX

PI Bridon DP, Ezrin AM, Milner PG, Holmes DL, Thibaudeau K;

XX

DR WPI: 2001-112059/12.

XX

PT Modifying and attaching therapeutic peptides to albumin prevents

PT peptidase degradation, useful for increasing length of in vivo activity

PT

XX

PS Disclosure; Page 603-604; 733pp; English.

XX

CC The present invention describes a modified therapeutic peptide (I)

CC comprising a therapeutically active amino acid region (III) and a

CC reactive group (II) (e.g. succinimide and maleimido groups) attached to

CC a less therapeutically active amino acid region (IV), which covalently

CC bonds with amino/hydroxyl/thiol groups on blood components to form a

CC peptidase stabilised therapeutic peptide composed of 3-50 amino acids.

CC (I) are useful for modifying therapeutic peptides e.g. hormones, growth

CC factors and neurotransmitters, to protect them from peptidase activity
 CC in vivo for the treatment of various disorders. Endogenous therapeutic
 CC peptides are not suitable as drug candidates as they require frequent
 CC administration due to rapid degradation by peptidases in the body.
 CC Modifying and attaching therapeutic peptides to albumin prevents or
 CC reduces the action of peptidases to increase length of activity (half
 CC life) and specificity as bonding to large molecules decreases
 CC intracellular uptake and interference with physiological processes.
 CC AAB90829 to AAB92441 represent peptides which can be used in the
 CC exemplification of the present invention.

XX Sequence 32 AA;
 SQ Query Match 89.5%; Score 128; DB 22; Length 32;
 Best Local Similarity 88.0%; Pred. No. 1.5e-10;
 Matches 22; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

Qy 1 PWSPALRLQLRPPEPSAHAFCHR 25
 Db 8 PWSPALRLQLRPPEPSAHAFCHR 32

RESULT 4
 AAB92075
 ID AAB92075 standard; Peptide; 33 AA.
 XX AC AAB92075;
 XX DT 22-JUN-2001 (first entry)
 XX DE Inhibin peptide SEQ ID NO:1251.
 XX KW Protection; endogenous therapeutic peptide; peptidase: conjugation;
 KW blood component; modification; succinimidy; maleimido group; amino;
 KW hydroxyl; thiol; hormone; growth factor; neurotransmitter.
 XX OS Homo sapiens.
 OS Synthetic.
 XX PN WO200069900-A2.
 XX FD 23-NOV-2000.
 XX PF 17-MAY-2000; 2000WO-US13576.
 XX PR 17-MAY-1999; 990S-0134406.
 PR 10-SEP-1999; 990S-0153406.
 PR 15-OCT-1999; 990S-0159783.
 XX PA (CONJ-) CONJUCHEM INC.
 XX PL Bridon DP, Erin AM, Milner PG, Holmes DL, Thibaudau K;
 XX WPI: 2001-112059/12.
 XX DR Modifying and attaching therapeutic peptides to albumin prevents
 PT peptidase degradation, useful for increasing length of in vivo activity
 PT .
 XX FS Disclosure: Page 604; 733pp; English.
 XX CC The present invention describes a modified therapeutic peptide (I)
 CC comprising a therapeutically active amino acid region (III) and a
 CC reactive group (II) (e.g. succinimidy and maleimido groups) attached to
 CC a less therapeutically active amino acid region (IV), which covalently
 CC bonds with amino/hydroxyl/thiol groups on blood components to form a
 CC peptidase stabilised therapeutic peptide composed of 3-50 amino acids.
 CC (I) are useful for modifying therapeutic peptides e.g. hormones, growth
 CC factors and neurotransmitters, to protect them from peptidase activity
 CC in vivo for the treatment of various disorders. Endogenous therapeutic
 CC peptides are not suitable as drug candidates as they require frequent
 CC administration due to rapid degradation by peptidases in the body.
 CC Modifying and attaching therapeutic peptides to albumin prevents or

CC reduces the action of peptidases to increase length of activity (half
 CC life) and specificity as bonding to large molecules decreases
 CC intracellular uptake and interference with physiological processes.
 CC AAB90829 to AAB92441 represent peptides which can be used in the
 CC exemplification of the present invention.

XX Sequence 33 AA;
 SQ Query Match 89.5%; Score 128; DB 22; Length 33;
 Best Local Similarity 88.0%; Pred. No. 1.6e-10;
 Matches 22; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

Qy 1 PWSPALRLQLRPPEPSAHAFCHR 25
 Db 9 PWSPALRLQLRPPEPSAHAFCHR 33

RESULT 5
 AAP80018
 ID AAP80018 standard; Protein; 134 AA.
 XX AC AAP80018;
 XX DT 28-JAN-1993 (first entry)
 XX DE Sequence of the 18K alpha-chain of a protein exhibiting
 DE inhibin activity.
 XX KW Fertility control; inhibin; follicle stimulating hormone; inhibitor;
 KW gonadotropin.
 XX OS Homo sapiens.
 XX FH Key Location/Qualifiers
 FT Misc-difference 55 /label= I,R
 XX PN US4737578-A.
 XX PD 12-APR-1988.
 XX PF 07-APR-1986; 86US-0848924.
 XX PR 07-APR-1986; 86US-0848924.
 PR 10-FEB-1986; 86US-0828435.
 XX PA (SALK) SALK INST FOR BIOL STUD.
 XX PI Evans RM, Rosenfeld MG, Cerelli G, Mayo KE, Spiess J;
 PI Rivier JEF, Vale WW.
 XX DR WPI: 1988-119128/17.
 XX PT New proteins with inhibin activity - esp. useful for controlling
 PT fertility in males
 XX PS Claim 1; Column 7; 6pp; English.
 XX CC The inventors claim 2 proteins - A and B - each of which has a
 CC molecular weight of about 32K and is comprised of an alpha (18K) and
 CC a beta (14K) chain of human inhibin. The alpha chain is AAP80018.
 CC The beta chain is either AAP80019 or AAP80020. Proteins A and B are
 CC useful for regulating fertility of mammals. Each 32K protein
 CC exhibits inhibin activity in basal secretion of FHS but not
 CC inhibiting basal secretion of luteinizing hormone (LH).

XX Sequence 134 AA;
 SQ Query Match 89.5%; Score 128; DB 9; Length 134;
 Best Local Similarity 88.0%; Pred. No. 7e-10;
 Matches 22; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

Qy 1 PWSPALRLQLRPPEPSAHAFCHR 25

Db 8 PWSPALRLQRPPEPAHANCHR 32
 |||||:|||||:|||||:|||||:|||||

RESULT 6
 AAB68139
 ID AAB68139 standard; Protein; 134 AA.

XX AAB68139;
 AC
 DT 09-JUL-2001 (first entry)
 XX Amino acid sequence of an alphaC fragment of human inhibin.
 DE AlphaC portion; inhibin; alpha-subunit; glycoprotein;
 XX follicle stimulating hormone; FSH; cancer.
 KW Homo sapiens.
 XX WO200129079-A1.
 PN 26-APR-2001.
 PD 18-OCT-2000; 2000NO-AUG1258.
 PF 18-OCT-1999; 99AU-0003485.
 PR 03-AUG-2000; 2000AU-0009162.
 XX (PRIN-) PRINCE HENRY'S INST MEDICAL RES.
 PA (GROO/) GROOME N P.
 XX Groome NP, Milne-Robertson DM, Stanton PG, Cahir NF;
 PI WPI; 2001-308476/32.
 DR N-PSDB; AAF84904.
 XX Immuno-interactive fragments of alpha-C portion of mammalian inhibin
 PT alpha-subunit used to, e.g. produce antigen-binding molecules for
 PT diagnosing cancer -
 PT Claim 5; Page 139; 159pp; English.

XX The present sequence represents an alphaC portion of a human inhibin
 CC alpha-subunit. Inhibin is a dimeric glycoprotein which is able to
 CC inhibit the secretion of follicle stimulating hormone (FSH) by the
 CC pituitary. Immuno-interactive fragments of the alphaC portion of inhibin
 CC alpha-subunit are used to raise antibodies. The antibodies are used to
 CC diagnose cancer of tissues in the ovary, uterus, breast, pituitary,
 CC testis, or prostate. The antibodies may be used in immunoassays such
 CC as radio-immunoassays, affinity chromatography in isolating a natural
 CC or recombinant mammalian inhibin, and for screening expression
 CC libraries for variant polypeptides.
 XX Sequence 134 AA;
 SQ
 Query Match 89.5%; Score 128; DB 22; Length 134;
 Best Local Similarity 88.0%; Pred. No. 7e-10;
 Matches 22; Conservative 2; Mismatches 1; Indels 0; Gaps 0;
 QY 1 PWSPALRLQRPPEPSAHANCHR 25
 |||||:|||||:|||||:|||||:|||||
 Db 8 PWSPALRLQRPPEPAHANCHR 32

RESULT 7
 AAM51942
 ID AAM51942 standard; protein; 134 AA.
 XX AAM51942;
 AC
 DT 01-FEB-2002 (first entry)
 XX Human TGFbeta protein superfamily protein Inh-9.

QY 1 PWSPALRLQRPPEPSAHANCHR 25
 |||||:|||||:|||||:|||||:|||||
 Db 8 PWSPALRLQRPPEPAHANCHR 32

XX Human; TGFbeta; transforming growth factor beta; mutant; antagonist;
 KW aconist; ectopic bone formation; psoriasis; muscular atrophy; scar;
 KW formation; fibrosis; cirrhosis; osteopathic; antipsoriatic;
 KW antifibrotic; hepatotropic; vulnery; inh-9.
 XX Homo sapiens.
 OS DE10026713-A1.
 PN 06-DEC-2001.
 PD 30-MAY-2000; 2000DE-1026713.
 XX 30-MAY-2000; 2000DE-1026713.
 PR (SEBA/) SEBALD W.
 XX Sebal W, Nickel J;
 PI WPI; 2002-042559/06.
 DR New mutin of transforming growth factor-beta superfamily protein,
 PT useful for treating or preventing e.g. ectopic bone formation, competes
 PT for receptor binding -
 XX disclosure; Fig 6; 54pp; German.

XX The present invention relates to muteins of a chain of a protein which,
 CC when in the form of a homodimer, has antagonistic or partial agonistic
 CC activity, and where the mutation results in the protein binding with low
 CC affinity to its receptor. The protein is a member of the transforming
 CC growth factor beta (TGFbeta) superfamily. The mutant sequences of the
 CC invention can be used in the treatment of diseases associated with the
 CC overexpression of TGFbeta family proteins, including ectopic bone
 CC formation, psoriasis, muscular atrophy, scar formation, fibrosis and
 CC cirrhosis. The present sequence is the human inh-9 protein.
 XX Sequence 134 AA;
 SQ
 Query Match 89.5%; Score 128; DB 23; Length 134;
 Best Local Similarity 88.0%; Pred. No. 7e-10;
 Matches 22; Conservative 2; Mismatches 1; Indels 0; Gaps 0;
 QY 1 PWSPALRLQRPPEPSAHANCHR 25
 |||||:|||||:|||||:|||||:|||||
 Db 8 PWSPALRLQRPPEPAHANCHR 32

RESULT 8
 AAP70202
 ID AAP70202 standard; protein; 351 AA.
 XX AAP70202;
 AC
 DT 09-APR-1991 (first entry)
 XX Sequence of human inhibin alpha-chain precursor.
 DE Fertility control; contraception; hormone; spermatogenesis.
 XX Homo sapiens.
 OS Key Location/Qualifiers
 XX Active-site 312..313
 FT /note="putative dibasic processing site"
 FT Modified-site 131..133
 FT /note="potential N-linked glycosylation sites"
 FT Modified-site 253..255
 FT /note="as above"
 FT Modified-site 287..289
 FT /note="as above"
 FT Region 1..16

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FT Region /note="signal sequence"
FT 17..117
FT Protein /note="pro region"
FT 118..351
FT Cleavage-site 116..117
FT /note="proteolytic processing site"
XX
XX EF222491-A.
XX
XX 20-MAY-1987.
XX
XX 02-OCT-1986; 86EP-0307586.
XX
XX 12-SEP-1986; 86US-0906729.
XX
XX 03-OCT-1985; 85US-0783910.
XX
XX 10-FEB-1986; 86US-0827710.
XX
XX (GETH ) GENENTECH INC.
XX
XX Mason AJ, Seeburg PH;
XX
XX WPI: 1987-137512/20.
XX
XX N-PSUB; AAN70314.
XX
XX Recombinant human or porcine inhibin or activin used for
XX modulating clinical condition or reproductive physiology of
XX animals.
XX
XX Disclosure; Fig 6A; 48pp; English.
XX
XX A compsn. comprising human or porcine inhibin which is completely
XX free of unidentified or porcine proteins is claimed. Also claimed
XX are non chromosomal DNA encoding inhibin-alpha or an inhibin-beta
XX chain. Sequencing of inhibin-encoding cDNA has led to the
XX identification of prodomain regions located N-terminal to the
XX mature inhibin chains that represent coordinately expressed
XX biologically active polypeptides. The prodomain regions or
XX prodomain immunogens are useful in monitoring preproinhibin
XX processing in transformant cell culture or in experiments directed
XX at modulating the clinical cond. or reproductive physiology of
XX animals.
XX
XX SQ Sequence 351 AA;
XX
XX Query Match 89.5%; Score 128; DA 8; Length 351;
XX Best Local Similarity 88.0%; Pred. No. 1.9e-09;
XX Matches 22; Conservative 2; Mismatches 1; Indels 0; Gaps 0;
XX
XX QY 1 PWSPALRLQRPPEPSAHAFCHR 25
XX | | | | | | | | | | | | | | | | | | | |
XX Db 225 PWSPALRLQRPPEPSAHAFCHR 249
XX
XX RESULT 9
XX AAP60519
XX ID AAP60519 standard; Protein; 366 AA.
XX
XX AC AAP60519;
XX
XX 26-JUN-1991 (first entry)
XX
XX Sequence of human inhibin A subunit.
XX
XX Hormone; inhibin agonist; antagonist; reproductive; gonad.
XX
XX Homo sapiens.
XX
XX Key Location/Qualifiers
XX 1..232
XX Region /note="claimed"
XX 52..232
XX Region /note="claimed"
XX 62..232
XX Region

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FT Peptide /note="claimed"
FT 1..61
FT Protein 62..365
XX
XX W08606076-A.
XX
XX 23-OCT-1986.
XX
XX 14-APR-1986; 86WO-AU00097.
XX
XX 20-DEC-1985; 85AU-0003961.
XX 18-APR-1985; 85AU-0000194.
XX 06-SEP-1985; 85AU-0002320.
XX 29-OCT-1985; 85AU-0003157.
XX 19-DEC-1985; 85AU-0003960.
XX 01-JAN-1986; 86AU-0059039.
XX 02-APR-1987; 87AU-0071015.
XX 05-MAY-1986; 86CN-0103459.
XX
XX (BIOT-) BIOTECHN AUSTR PTY.
XX (MONU ) MONASH UNIV.
XX (HFNH-) PRICE HENRY'S HOSPITAL.
XX (SVIN-) ST VINCENT'S INST MED RES.
XX
XX Forage R, Stewart A, Robertson D, Dekretser DM;
XX
XX WPI: 1986-291647/44.
XX N-PSUB; AAN60428.
XX
XX New polynucleotide sequences and recombinant DNA - encoding
XX inhibin and synthetic peptides useful for affecting gonadal
XX function
XX
XX Disclosure; Fig 7; 71pp; English.
XX
XX DNA encoding inhibin and inhibin or part, analogues, homologues or
XX precursors thereof when produced by recombinant techniques are also
XX claimed, as well as pharmaceutical compositions thereof. These may
XX be used as an inhibin agonist, antagonist or for eliciting an
XX antigenic response to affect gonadal function or reproductive
XX physiology.
XX
XX SQ Sequence 366 AA;
XX
XX Query Match 89.5%; Score 128; DB 7; Length 366;
XX Best Local Similarity 88.0%; Pred. No. 2e-09;
XX Matches 22; Conservative 2; Mismatches 1; Indels 0; Gaps 0;
XX
XX QY 1 PWSPALRLQRPPEPSAHAFCHR 25
XX | | | | | | | | | | | | | | | | | | | |
XX Db 240 PWSPALRLQRPPEPSAHAFCHR 264
XX
XX RESULT 10
XX AAP83167
XX ID AAP83167 standard; Protein; 366 AA.
XX
XX AC AAP83167;
XX
XX 28-JAN-1993 (first entry)
XX
XX Sequence of the 18K alpha-chain of a protein exhibiting
XX inhibin activity and its N-terminal sequence.
XX
XX Fertility control; inhibin; follicle stimulating hormone; inhibitor;
XX gonadotropin.
XX
XX Homo sapiens.
XX
XX Key Location/Qualifiers
XX 1..232
XX Region /label= N-terminal
XX 233..366
XX Region

```

FT /label= alpha chain
 FT /note= "claimed"
 PN US4737578-A.
 XX 12-APR-1988.
 PD 07-APR-1986; 86US-0848924.
 XX 07-APR-1986; 86US-0848924.
 PR 10-FEB-1986; 86US-0828435.
 XX (SAL-K) SALK INST FOR BIOL. STUD.
 PA Evans RM, Rosenfeld MG, Cerelli G, Mayo KE, Spiess J;
 XX Rivier JEF, Vale WW;
 PI WPl: 1988-119128/17.
 DR N-PSDB: AAN80040.

XX New proteins with inhibin activity - esp. useful for controlling
 PT fertility in males
 XX

PS Disclosure; Table 1, pages 6-7; 6pp; English.

XX The inventors claim 2 proteins - A and B - each of which has a
 CC molecular weight of about 32K and is comprised of an alpha (18K) and
 CC a beta (14K) chain of human inhibin. The alpha chain is AAP80018
 CC The beta chain is either AAP80019 or AAP80020. Proteins A and B are
 CC useful for regulating fertility of mammals. Each 32K protein
 CC exhibits inhibin activity in basal secretion of FHS but not
 CC inhibiting basal secretion of luteinizing hormone (LH).
 XX

SQ Sequence 366 AA;

Query Match 89.5%; Score 128; DR 9; Length 366;
 Best Local Similarity 88.0%; Pred. No. 2e-09;
 Matches 22; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

QY 1 PWSPALRLRLQRPPEPSAHAFCHR 25
 ||||:|||||||||||:||||
 Db 240 PWSPALRLRLQRPPEPAHANCHR 264

RESULT 11
 AAY92015
 ID AAY92015 standard; Protein: 366 AA.

XX AAY92015;

XX 19-JUL-2000 (first entry)

XX Human inhibin A alpha subunit.

XX human inhibin A alpha subunit; CKGF; mutant; cystine knot growth factor;
 KW hairpin loop; infertility.
 XX

OS Homo sapiens.

PH Key Location/Qualifiers
 FT Misc-difference 1..265

FT /note= "optionally mutated to increase electrostatic
 FT interaction between beta hairpin structure and
 FT a receptor"

FT Domain 266..286

FT /label= beta_hairpin_loop_i
 FT /note= "mutant optionally comprises one or more
 FT substitutions in these residues"

FT Misc-difference 287..331
 FT /note= "optionally mutated to increase electrostatic
 FT interaction between beta hairpin structure and
 FT a receptor"

FT Domain 332..359

FT /label= beta_hairpin_loop_3
 FT /note= "mutant optionally comprises one or more
 FT substitutions in these residues"
 FT Misc-difference 360..366
 FT /note= "optionally mutated to increase electrostatic
 FT interaction between beta hairpin structure and
 FT a receptor"
 XX WO200017360-A1.
 PN 30-MAR-2000.
 XX 19-MAR-1999; 99WO-US05908.
 XX 22-SEP-1998; 98WO-US19772.
 XX (OYMA-) UNIV MARYLAND BALTIMORE.
 PA Weintraub BD, Szkudlinski MW;
 XX WPI: 2000-283585/24.
 XX

XX New mutant cystine knot growth factor proteins comprising one or more
 PT mutant subunits, useful for treating or preventing diseases e.g.
 PT hypothyroidism and thyroid cancer
 XX

PS Claim 268; Page 303; 320pp; English.

XX This is the wild type human inhibin A alpha subunit.
 CC Mutants comprise at least one electrostatic charge altering mutation in a
 CC beta hairpin loop, resulting in increased bioactivity.

CC Mutant cystine knot growth factor (CKGF) proteins comprising one or more
 CC mutant subunits and having novel properties or improved pharmacological
 CC properties, compared to wild type CKGFs, are claimed. The CKGF
 CC superfamily comprises at least four families of growth factors: the
 CC glycoprotein hormones, the platelet-derived growth factor (PDGF) family,
 CC the neurotrophins and the transforming growth factor-beta family; the
 CC families are known to be structurally similar (especially comprising the
 CC cystine knot topology) and it was shown that mutations at certain
 CC positions in the CKGF hairpin loops of family members and other members
 CC of the CKGF superfamily could significantly alter the biological
 CC activities of the CKGF.

CC Mutant transforming growth factor family proteins or analogues are useful
 CC for treatment of ovulatory dysfunction, luteal phase defect, unexplained
 CC infertility, time-limited conception and in assisted reproduction.

XX Sequence 366 AA;

Query Match 89.5%; Score 128; DR 21; Length 366;

Best Local Similarity 88.0%; Pred. No. 2e-09;

Matches 22; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

QY 1 PWSPALRLRLQRPPEPSAHAFCHR 25
 ||||:|||||||||||:||||
 Db 240 PWSPALRLRLQRPPEPAHANCHR 264

RESULT 12

AAB92078
 ID AAB92078 standard; Peptide: 32 AA.

XX AAB92078;

XX 22-JUN-2001 (first entry)

XX Inhibin peptide SEQ ID NO:1254.

XX Protection; endogenous therapeutic peptide; peptidase; conjugation;
 KW blood component; modification; succinylmethyl; maleimido group; amino;
 KW hydroxyl; thiol; hormone; growth factor; neurotransmitter.

XX Homo sapiens.

OS Synthetic.

XX WO200069900-A2.
 XX 23-NOV-2000.
 XX PF 17-MAY-2000; 2000WO-US13576.
 XX 17-MAY-1999; 99US-0134406.
 PR 10-SEP-1999; 99US-0153406.
 PR 15-OCT-1999; 99US-0159783.
 XX (CONJ-) CONJUCHEM INC.
 PA Bridon DP, Ezrin AM, Milner PG, Holmes DL, Thibaudeau K;
 PI WPI; 2001-112059/12.
 DR
 XX
 PT Modifying and attaching therapeutic peptides to albumin prevents
 PT peptidase degradation, useful for increasing length of in vivo activity
 PT
 XX
 PS Disclosure; Page 605; 73pp; English.
 XX The present invention describes a modified therapeutic peptide (I)
 CC comprising a therapeutically active amino acid region (III) and a
 CC reactive group (II) (e.g. succinimidy and maleimido groups) attached to
 CC a less therapeutically active amino acid region (IV), which covalently
 CC bonds with amino/hydroxyl/thiol groups on blood components to form a
 CC peptidase stabilised therapeutic peptide composed of 3-50 amino acids.
 CC (I) are useful for modifying therapeutic peptides e.g. hormones, growth
 CC factors and neurotransmitters, to protect them from peptidase activity
 CC in vivo for the treatment of various disorders. Endogenous therapeutic
 CC peptides are not suitable as drug candidates as they require frequent
 CC administration due to rapid degradation by peptidases in the body.
 CC Modifying and attaching therapeutic peptides to albumin prevents or
 CC reduces the action of peptidases to increase length of activity (half
 CC life) and specificity as bonding to large molecules decreases
 CC intracellular uptake and interference with physiological processes.
 CC AAB90829 to AAB92441 represent peptides which can be used in the
 CC exemplification of the present invention.
 XX
 SQ Sequence 32 AA;
 Query Match 88.8%; Score 127; DB 22; Length 32;
 Best Local Similarity 88.0%; Pred. No. 2.1e-10;
 Matches 22; Conservative 1; Mismatches 2; Indels 0; Gaps 0;
 OY 1 PWSPAALRLQRPPEPSAHAFCHR 25
 DB 8 PWSPAALRLQRPPEPSAHAFCHR 32
 RESULT 13
 AAB92079
 ID AAB92079 standard; Peptide; 33 AA.
 AC AAB92079;
 XX 22-JUN-2001 (first entry)
 DT
 XX Inhibin peptide SEQ ID NO:1255.
 DE
 XX Protection; endogenous therapeutic peptide; peptidase; conjugation;
 KW blood component; modification; succinimidy; maleimido group; amino;
 KW hydroxyl; thiol; hormone; growth factor; neurotransmitter.
 XX
 OS Homo sapiens.
 OS Synthetic.
 XX
 PN WO200069900-A2.
 XX 23-NOV-2000.
 XX

PF 17-MAY-2000; 2000WO-US13576.
 XX 17-MAY-1999; 99US-0134406.
 PR 10-SEP-1999; 99US-0153406.
 PR 15-OCT-1999; 99US-0159783.
 XX (CONJ-) CONJUCHEM INC.
 FA Bridon DP, Ezrin AM, Milner PG, Holmes DL, Thibaudeau K;
 PI WPI; 2001-112059/12.
 DR
 XX
 PT Modifying and attaching therapeutic peptides to albumin prevents
 PT peptidase degradation, useful for increasing length of in vivo activity
 PT
 XX
 PS Disclosure; Page 606; 73pp; English.
 XX The present invention describes a modified therapeutic peptide (I)
 CC comprising a therapeutically active amino acid region (III) and a
 CC reactive group (II) (e.g. succinimidy and maleimido groups) attached to
 CC a less therapeutically active amino acid region (IV), which covalently
 CC bonds with amino/hydroxyl/thiol groups on blood components to form a
 CC peptidase stabilised therapeutic peptide composed of 3-50 amino acids.
 CC (I) are useful for modifying therapeutic peptides e.g. hormones, growth
 CC factors and neurotransmitters, to protect them from peptidase activity
 CC in vivo for the treatment of various disorders. Endogenous therapeutic
 CC peptides are not suitable as drug candidates as they require frequent
 CC administration due to rapid degradation by peptidases in the body.
 CC Modifying and attaching therapeutic peptides to albumin prevents or
 CC reduces the action of peptidases to increase length of activity (half
 CC life) and specificity as bonding to large molecules decreases
 CC intracellular uptake and interference with physiological processes.
 CC AAB90829 to AAB92441 represent peptides which can be used in the
 CC exemplification of the present invention.
 XX
 SQ Sequence 33 AA;
 Query Match 88.8%; Score 127; DB 22; Length 33;
 Best Local Similarity 88.0%; Pred. No. 2.2e-10;
 Matches 22; Conservative 1; Mismatches 2; Indels 0; Gaps 0;
 OY 1 PWSPAALRLQRPPEPSAHAFCHR 25
 DB 9 PWSPAALRLQRPPEPSAHAFCHR 33
 RESULT 14
 AAP71175
 ID AAP71175 standard; protein; 134 AA.
 XX AAP71175;
 AC AAP71175;
 XX 20-MAY-1991 (first entry)
 DT
 XX First protein chain of a 32 kDa FSH secretion-inhibitor.
 DE
 XX FSH secretion-inhibitor; contraceptive; infertility diagnosis.
 KW
 XX Sus scrofa.
 OS
 XX WO8700528-A.
 PN
 XX 29-JAN-1987.
 PD
 XX 17-JUL-1986; 86WO-US01505.
 PF
 XX 03-OCT-1985; 85US-0784436.
 PR
 XX 18-JUL-1985; 85US-0756866.
 PR
 XX (SALK) SALK INST FOR BIOL STUD.
 FA
 XX Ling NCK, Ying SY, Esch FS, Guillemin RCL;
 PI

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XX WPI; 1987-037245/05.
XX
XX New protein which specifically inhibits basal secretion of FSH
PT - isolated from porcine follicular fluid, useful as male
PT contraceptive.
PT
XX Claim 8; Page 22; 35pp; English.
XX
XX The protein sequence encodes the 18 kDa first chain of the 32 kDa
CC FSH secretion-inhibitor. This sequence is linked by disulfide bonds
CC to a sequence (AAP71176 or AAP71177) encoding a second polypeptide of
CC the FSH secretion-inhibitor. The complete protein is used for
CC regulating (decreasing) fertility in mammals, is used as a male
CC contraceptive and in tests for infertility diagnosis.
XX
XX Sequence 134 AA;
SQ
Query Match 88.8%; Score 127; DB 8; Length 134;
Best Local Similarity 88.0%; Pred. No. 9.5e-10;
Matches 22; Conservative 1; Mismatches 2; Indels 0; Gaps 0;
QY 1 PWSPAALRLQRPPEPSAHAFCHR 25
DB 8 PWSPAALRLQRPPEFAVHADCHR 32
|||||
RESULT 15
AAP70310
ID AAP70310 standard; protein: 364 AA.
XX
XX AAP70310;
XX
XX 09-APR-1991 (first entry)
XX
XX Sequence of porcine inhibin alpha-chain precursor.
XX
XX Fertility control; contraception; hormone; spermatogenesis.
XX
XX Sus scrofa domestica.
XX
XX Key Location/Qualifiers
FT Active-site 55..56
FT /note="putative dibasic processing sites"
FT Active-site 59..60
FT /note="as above"
FT Active-site 68..69
FT /note="as above"
FT Modified-site 144..146
FT /note="potential N-linked glycosylation sites"
FT Modified-site 266..268
FT /note="as above"
FT Region 1..230
FT /note="used to design a long synthetic DNA probe"
FT Protein 231..364
FT Cleavage-site 229..230
FT Region 232..252
FT /note="proteolytic processing site"
FT /note="( basis of probe AAP71184)"
XX
XX EF222491-A.
XX
XX 20-MAY-1987.
XX
XX 02-OCT-1986; 86EP-0307586.
XX
XX 12-SEP-1986; 86US-0906729.
XX
XX 03-OCT-1985; 85US-0783910.
XX
XX 10-FEB-1986; 86US-0827710.
XX
XX (GETH ) GENENTECH INC.
XX
XX Mason AJ, Seeburg PH;
PI

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XX WPI; 1987-137512/20.
XX N-PSDB; AAN70310.
XX
XX Recombinant human or porcine inhibin or activin - used for
PT modulating clinical condition or reproductive physiology of
PT animals.
XX
XX Disclosure; Fig 1B; 48pp; English.
XX
XX A compan. comprising human or porcine inhibin which is completely
CC free of unidentified or porcine proteins is claimed. Also claimed
CC are non chromosomal DNA encoding inhibin-alpha or an inhibin-beta
CC chain. Sequencing of inhibin-encoding cDNA has led to the
CC identification of prodomain regions located N-terminal to the
CC mature inhibin chains that represent coordinately expressed
CC biologically active polypeptides. The prodomain regions or
CC prodomain immunogens are useful in monitoring preproinhibin
CC processing in transformant cell culture or in experiments directed
CC at modulating the clinical cond. or reproductive physiology of
CC animals.
XX
XX Sequence 364 AA;
Query Match 88.8%; Score 127; DB 8; Length 364;
Best Local Similarity 88.0%; Pred. No. 2.7e-09;
Matches 22; Conservative 1; Mismatches 2; Indels 0; Gaps 0;
QY 1 PWSPAALRLQRPPEPSAHAFCHR 25
DB 238 PWSPAALRLQRPPEFAVHADCHR 262
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